REMARKS/ARGUMENTS

Claim 1-9 remain in this case for the Examiner's consideration. Claim 1 has been amended to specify that Applicants' transmitting device is attached to a hand-held weapon. Support for this amendment is found, among other places, in Applicants' specification at page 2, lines 1-5 and 30-32.

A. Prior Art Rejections

1. The Invention

Applicants have invented a secure interrogation system for use with a hand-held weapon to identify whether a target is friendly or unfriendly. Applicants' interrogation system features a transmitting device attached to a hand-held weapon which transmits an inquiry to a target responder device in the form of directionally specific single electromagnetic pulses or short bursts of electromagnetic pulses which are staggered with different distances between pulses or short bursts of pulses in order to transmit coded information. Applicants' responder device has a sensor for detecting such electromagnetic pulses, an evaluation unit for processing such detected pulses and a transmitter for sending back a response to the transmitting device's inquiry. The response signal from the responder device can then be received by the transmitting unit.

2. The Cited Art Distinguished

Claims 1-3 and 7-9 have been rejected under 35 U.S.C. § 103(a) as being obvious over D'Isepo's U.S. Patent No. 5,583,507 ("D'Isepo patent") in view of Fullerton's U.S. Patent No. 5,687, 169 ("Fullerton patent").

On the issue of "obviousness," the Patent Office bears the burden of establishing a case of *prima facie* obviousness. *In re Fine*, 837 F.2d 1071, 1074 (Fed.Cir. 1988). To determine whether or not the claimed subject matter can properly be viewed as being "obvious" under 35 U.S.C. § 103, "the scope and content of the prior art are to be determined; and the level of ordinary skill in the pertinent art resolved... Such secondary considerations as commercial

success, long felt but unsolved need, failure of others, etc. might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 86 S.Ct. 684, 694, 15 L.Ed.2d 545 (1966). In order to properly combine references for an obviousness determination, there must be a suggestion or motivation in the references to make such a combination. *In re Gordon*, 733 F.2d 900, 902 (Fed.Cir. 1984)("The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification"). With these legal principles in mind, the merits of the obviousness rejections will now be addressed.

The cited D'Isepo patent discloses a passive friend or foe identification system. In the D'Isepo system, an active signal is transmitted from an interrogator, such as D'Isepo's aircraft, and then reflected off of a passive reflective surface, such as D'Isepo's truck. The characteristics of D'Isepo's reflective surface can be varied in order to reflect the interrogator's signal in different ways. As shown in Figure 5, the signal from D'Isepo's interrogator appears to be a continuous signal. The Fullerton patent discloses a method of interleaving pulse transmissions from two sources so that those transmissions do not interfere with one another. Applicants find no disclosure in the Fullerton patent of any military application, particularly any suggested use for a hand-held weapon.

Neither the D'Isepo patent nor the Fullerton patent disclose Applicants' invention of having a transmitting device attached to a hand-held weapon send a directionally specific single electromagnetic pulse or short bursts of electromagnetic pulses which are staggered with different distances between the pulses or short bursts of pulses in order to transmit coded information. Unlike the D'Isepo system, Applicants' system does not involve the transmission of continuous waves. As such, Applicants' system requires less energy and can be constructed more compactly for use on the hand-held weapons of, for example, individual soldiers. Moreover, because Applicants' pulses are directionally specific and of short duration, it is much more difficult for an enemy to intercept Applicants' signals and mimic them to potentially disastrous effect. Further, by using different distances between Applicants' pulses or short bursts of pulses, Applicant is able to transmit coded information.

In the Office Action, the Examiner acknowledges that D'Isepo does not disclose a transmitting device which transmits directionally specific single electromagnetic pulses or short bursts of pulses which are staggered with different distances between those pulses or short bursts of pulses. To supply this missing teaching, the Examiner relies upon the Fullerton patent. Yet, as previously noted, Applicants have found nothing in the Fullerton disclosure which suggests application in a military context to "friend or foe" identification systems, much less as part of a hand-held weapon. Fullerton's patent addresses the problem of interference between two transmitters, such as mobile phone transmitters, which are broadcasting relatively continuous signals using an antenna which is also receiving signals. Fullerton solves this interference problem by preventing simultaneous transmission and reception by a device.

By contrast, in Applicants' invention, transmitter/receiver interference is not the problem. The problem addressed by Applicants is how to prevent interception of identification signals by a foe. This problem is solved in Applicants' invention by using a small amount of pulsed, directionally specific signals to identify friend from foe. Since the Fullerton patent addresses a completely different problem than the "friend or foe" identification problem addressed by Applicants and addresses that problem in a different way (i.e., by interleaving transmission and reception signals), the Fullerton patent is non-analogous art which cannot be combined with the D'Isepo patent to render any of Applicants' claimed inventions unpatentable.

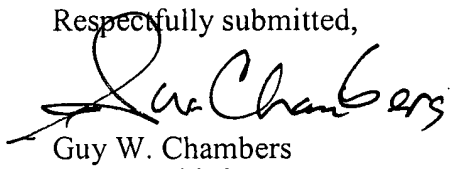
Applicants' Claim 4-6 have been rejected under 35 U.S.C. § 103(a) as being obvious over the D'Isepo and Fullerton patents further in view of one or more of Fuchter's U.S. Patent No. 6, 140,982 ("Fuchter patent"), Udd's U.S. Patent No. 5,091,917 ("Udd patent") and Wagner's U.S. Patent No. 5,130,713 ("Wagner patent"). The Fuchter patent discloses a friend or foe identification system where the interrogator generates a continuous querying electromagnetic "wave" and receives a similar electromagnetic "wave" in response (see, col. 1, line 66 - col. 2, line 11). The Udd patent discloses a method of sorting signals received from a plurality of emitters. The Wagner patent appears to disclose a pulsed laser positioning device which works in combination with a high frequency or microwave range communication device to distinguish friend from foe.

Neither the Udd, Fuchter or Wagner patents disclose Applicants' invention of having a transmitting device attached to a hand-held weapon send a directionally specific single electromagnetic pulse or short bursts of electromagnetic pulses which are staggered with different distances between the pulses or short bursts of pulses in order to transmit coded information. For these reasons, neither the Udd, Fuchter or Wagner patents provide the teachings necessary, either alone or in combination with the D'Isepo and Fullerton patent, to render any of Applicants' claims unpatentable.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (415) 576-0200.

Respectfully submitted,



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